

Background to Apollo 13

In response to the advancements made by the Russian space program (namely, first orbiting satellite and first man in space), U.S. President John F. Kennedy decided to fund NASA's efforts and provided encouragement with these words:

"I believe that this nation should commit itself to achieving the goal, before this decade is out, of landing a man on the Moon and returning him safely to the Earth..." / "But why, some say, the Moon? ... And they may well ask, why climb the highest mountain? Why, 35 years ago, fly the Atlantic?... We choose to go to the Moon ... not because [it is] easy, but because [it is] hard; because that goal will serve to organize and measure the best of our energies and skills; because that challenge is one that we are willing to accept, one we are unwilling to postpone, and one we intend to win..."

The first U.S. manned mission, Apollo 7, was launched in October 1968 and spent 11 days orbiting the Earth. On July 20, 1969 the crew of Apollo 11 reached the Moon and Neil Armstrong and Buzz Aldrin made history by spending almost a full day (21.6 hours) on the surface of the moon. It truly was "one small step for man, one giant leap for mankind." The crew of Apollo 12 also landed successfully on the moon just four months later in November.

Less than a year after the first lunar landing (on April 11, 1970), Apollo 13 was launched. It was the seventh manned mission in the American space program and the third intended for lunar experiments. The United States is the only country that has landed men on the moon – only 12 have walked on its surface, the last pair in 1972.

This thrillingly dangerous mission was dramatized in Ron Howard's 1995, *Apollo 13*, which was nominated for nine Academy Awards and brought in \$355 million in box office revenue worldwide. The main actors attended U.S. Space Camp, were taught about the function of each of the 500 controls in the spacecraft, and spent a total of four hours filming aboard an aircraft that would free-fall in 25-second bursts to simulate weightlessness.



Actual crew (above), movie crew (below)



Apollo 13 – Questionnaire

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In the opening scene, what is the significance of the event everyone is watching?

What past NASA event makes Jim's youngest son scared about his dad going into space?

During training, Jim's team receives some troubling news. What is it, and how is it resolved?

During the rocket launch, what happens that Jim assumed was "our glitch [problem] for this mission"?

What is the purpose and result of the national broadcast from space?

What minor act caused several master alarms to go off?

After the explosion, Jim noticed that they were "venting something out into space." What was the significance of this?

To fix the venting problem, the suggestion was made to "shut down the fuel cells." What consequences did that solution have?

Why do the astronauts shut down the Odyssey and move into the smaller Aquarius?

How does Jim's family find out about the problems in space? How do you think they felt?
Who gets brought to NASA headquarters to help solve the power-up issue in the simulator?

There is a NASA team assembled to help solve a serious problem for the astronauts. They create something and instruct the astronauts on how to construct it. What do they build and why was it important?

What do the astronauts do that shocks the NASA doctor? Why do you think they did it?

Why do the astronauts need to "burn the engines"? Why was the burn so stressful?

What two famous astronauts talk to Jim's elderly mother to distract and calm her?

What part of the spacecraft could have been damaged in the previous explosion that worried everyone as the crew was about to reenter the atmosphere?

In the final minutes, the Apollo 13 mission is referred to by NASA as "a successful failure." Do you think this is appropriate?

This movie highlights some of the benefits and risks of manned space exploration. The future horizons for space exploration are first to an asteroid, then to Mars.

Which space missions do you support more – manned or remote-controlled? Why?